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(54) Sample rate conversion system having interpolation function.

(57) A first digital data processing system (111) outputs digital data obtained by sampling, in response to a clock signal (CK1) of a first frequency (f1), original data having a characteristic enabling interpolation thereof. A second digital data processing system (113) obtains output data by sampling input data in response to a clock signal (CK2) of a second frequency (f2). A sample rate conversion circuit (112) receives the digital data from the first digital data processing system (111), converts the sample rate thereof into a sample rate suitable for the second digital data processing system (113), and supplies the sample rate, as the input data, to the second digital data processing system (113). The sample rate conversion circuit (112) includes an interpolation circuit for performing interpolation of two adjacent units of data of the digital data received from the first digital data processing system, and an interpolation coefficient calculation circuit for calculating an interpolation coefficient, which is subsequently, supplied to the interpolation circuit, in accordance with a phase relationship between the clock signals (CK1, CK2) of the first (f1) and second (f2) frequencies.

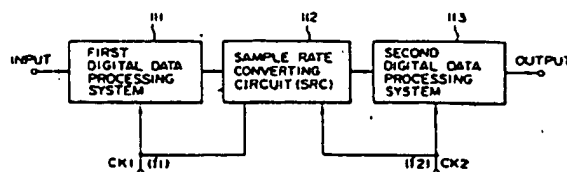


FIG. 10

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## EUROPEAN SEARCH REPORT

Application Number

EP 87 11 4225

## DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
X	EP-A-0 176 946 (W. STUDER AG) * Figures 6-11; page 8, line 1 - page 20, line 12 *	1-4, 6, 8	H 03 H 17/06 G 06 F 15/353
X	GB-A-2 078 406 (WESTERN ELECTRIC CO. INC.) * Whole document *	1, 2, 4-9	
A	EP-A-0 181 953 (DEUTSCHE ITT) * Whole document *	1-9	
A	US-A-4 231 097 (S. SHIBAYAMA et al.)	1-9	
P, A	EP-A-0 198 269 (DAINIPPON SCREEN MFG)	1-9	
P, A	EP-A-0 220 880 (SONY CORP.)	1-9	
			TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
			H 03 H G 06 F H 04 N
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 11-07-1989	Examiner DECONINCK E. F. V.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	